

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2006-XXXX

NPDES NO. CA0081485

MONITORING AND REPORTING PROGRAM
FOR
CUTLER-OROSI JOINT POWERS WASTEWATER AUTHORITY
WASTEWATER TREATMENT FACILITY
TULARE COUNTY

This Monitoring and Reporting Program (MRP) is issued pursuant to California Water Code sections 13383 and 13267. The Discharger shall not deviate from this MRP unless and until the Regional Board or Executive Officer issues a revised MRP. Sampling locations are depicted on [Attachment B](#). Any proposed change to a sampling location must have the prior written concurrence of the Regional Board staff. After concurrence, a description of the change and the Regional Board staff's written concurrence must be attached to the Discharger's copy of this Order. Quarterly monitoring requires sampling in January, April, July, and October (quarterly monitoring for Discharge 002 requires sampling in January and April).

Sample collection, storage, and analyses shall be performed according to 40 CFR Part 136 or other methods approved and specified by the Executive Officer. All samples shall be grab samples unless otherwise indicated and representative of the volume and nature of the discharge or matrix of material sampled. The time, date, and location of each sample shall be recorded on the sample chain of custody form. All analyses shall be performed in accordance with the Standard Provisions, Provisions for Monitoring.

Water and waste analyses shall be performed by a laboratory approved for these analyses by the State Department of Health Services (DHS) or a laboratory waived by the Executive Officer from obtaining a certification for these analyses by the DHS. The director of the laboratory whose name appears on the certification or his or her laboratory supervisor who is directly responsible for analytical work performed shall supervise all analytical work, including appropriate quality assurance/quality control procedures in his or her laboratory, and shall sign all reports of such work submitted to the Regional Board.

For California Toxics Rule (CTR) priority pollutants, the Discharger shall report sampling results as required by the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementations Plan or SIP) Section 2.4. The laboratory used by the Discharger must meet minimum levels in the SIP Appendix 4.

CUTLER-OROSI JOINT POWERS WASTEWATER AUTHORITY WWTF
TULARE COUNTY

INFLUENT MONITORING

The Discharger shall collect influent samples at the inlet of the headworks of the treatment facility prior to any treatment of waste. The influent samples shall be collected at approximately the same time as effluent samples and shall be representative of the influent for the period sampled. Influent monitoring shall include at least the following:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample or Measurement</u>	<u>Frequency of Sampling or Measurement</u>
Flow	mgd	Metered	Continuous
Monthly Average Daily Flow	mgd	Computed	1/Month
Annual Monthly Average Daily Flow ¹	mgd	Computed	1/Month
Settleable Solids	mL/L	Grab	1/Day ²
pH	pH units	Grab	1/Day ²
BOD ₅ ³	mg/L	24-hr Composite ⁴	2/Week ⁵
Monthly Average BOD ₅	mg/L	Calculated	1/Month
TSS ⁶	mg/L	24-hr Composite ⁴	2/Week ⁵
Monthly Average TSS	mg/L	Calculated	1/Month

¹ Based on the previous twelve months.

² Daily monitoring for this constituent may exclude weekends or holidays.

³ Five-day, 20°C biochemical oxygen demand.

⁴ Composite sampling, as referred to in this program, shall be flow-proportioned.

⁵ On nonconsecutive days.

⁶ Total Suspended Solids

EFFLUENT MONITORING

Discharge 001

Effluent samples shall be collected at the last point after wastes can be admitted to the discharge line, but before discharging to land/irrigation. Effluent samples shall be representative of the volume and nature of the discharge. Time of collection of the grab samples shall be recorded. Effluent monitoring shall include at least the following:

CUTLER-OROSI JOINT POWERS WASTEWATER AUTHORITY WWTF
TULARE COUNTY

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample or Measurement</u>	<u>Frequency¹ of Sampling or Measurement</u>
Flow	mgd	Metered	Continuous
Settleable Solids	mL/L	Grab	1/Day ²
pH	pH Units	Grab	1/Day ²
Temperature	°F	Grab	1/Day ²
Chlorine Residual ³	mg/L	Continuous	1/Day
Turbidity ³	NTU ⁴	Continuous	1/Day
TCO ⁵	MPN ⁶ /100 ml	Grab	1/Day ⁷
BOD ₅			
Concentration	mg/L	24-hr Composite	2/Week ⁸
Monthly Average	mg/L	Calculated	1/Month
Percent Removal	%	Calculated	1/Month
TSS			
Concentration	mg/L	24-hr Composite	2/Week ⁸
Monthly Average	mg/L	Calculated	1/Month
Percent Removal	%	Calculated	1/Month
Salinity Compounds/Parameters			
EC ⁹	µmhos/cm	24-hr Composite	1/Day ²
TDS ¹⁰	mg/L	24-hr Composite	2/Month ¹¹
Chloride	mg/L	24-hr Composite	2/Month ¹¹
Sodium	mg/L	24-hr Composite	2/Month ¹¹
Boron	mg/L, lbs/day	24-hr Composite	2/Month ¹¹
SAR ¹²		Calculated	2/Year ¹³
Nitrogen Compounds			
Ammonia (as NH ₃ -N)	mg/L	Grab	1/Week ¹⁴
Un-ionized Ammonia ⁸ (as NH ₃ -N)	mg/L, lbs/day	Grab	1/Week ¹⁴
Nitrate (as NO ₃ -N)	mg/L	24-hr Composite	1/Week ¹⁴
Total Kjeldahl Nitrogen (TKN)	mg/L	24-hr Composite	1/Week ¹⁴
Total Organic Nitrogen (as N)	mg/L	Calculated	1/Week ¹⁴
Total Nitrogen	mg/L	Calculated	1/Week ¹⁴
Total Organic Carbon	mg/L	24-hr Composite	1/Quarter
General Minerals ¹⁵	mg/L	24-hr Composite	2/Year ¹⁶

CUTLER-OROSI JOINT POWERS WASTEWATER AUTHORITY WWTF
TULARE COUNTY

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample or Measurement</u>	<u>Frequency¹ of Sampling or Measurement</u>
Metals ¹⁷	µg/L	24-hr Composite	2/Year ¹⁶
Title 22 Constituents ¹⁸	varies	24-hr Composite	2/Year ¹⁶
Priority Pollutants ¹⁹	varies	Grab	2/Year ¹⁶

¹ If results of monitoring a pollutant appear to violate discharge specifications, but monitoring frequency is not sufficient to validate violation (e.g., the monthly mean for BOD₅), or indicate a violation and potential upset of the treatment process, the frequency of sampling shall be increased to confirm the magnitude and duration of violation, if any, and aid in identification and resolution of the problem.

² Daily monitoring for this constituent may exclude weekends and holidays.

³ The Discharger shall report the daily minimum, maximum and average chlorine residual and turbidity.

⁴ Nephelometric turbidity units.

⁵ Total coliform organisms.

⁶ Most probable number.

⁷ Sample daily only when groundwater is less than five feet below ground surface, based on groundwater monitoring well data. Sample weekly when groundwater is more than five feet below ground surface. After consulting with DHS and obtaining its concurrence, the Discharger may submit a written request, subject to Executive Officer written approval, to reduce the frequency of TCO monitoring.

⁸ On nonconsecutive days.

⁹ Conductivity at 25°C.

¹⁰ Total dissolved solids (TDS) referenced hereafter in this program shall be determined using USEPA Method No. 160.1 for combined organic and inorganic TDS and USEPA Method No. 160.4 for inorganic TDS or equivalent analytical procedures specified in 40 Code of Federal Regulations (CFR) Part 136.

¹¹ Coincident with EC monitoring

¹² Sodium adsorption ratio (SAR) referenced hereafter in this program shall be determined as follows:

$$SAR = \frac{Na}{\sqrt{\frac{Ca + Mg}{2}}}, \text{ where Na, Ca, and Mg are in meq/L}$$

¹³ Coincident with effluent General Minerals monitoring

¹⁴ Monitoring frequency following satisfaction of Provision I. 6. Prior to this, nitrogen compounds in effluent shall be monitored at least 1/Month coincident with BOD₅ monitoring.

¹⁵ General Minerals as referred to in this program shall include the constituents in the General Minerals Analyte List presented below.

¹⁶ April and October

¹⁷ Metals as referred to in this program shall include arsenic, barium, copper, cadmium, chromium, lead, mercury, molybdenum, selenium, silver, zinc, and nickel.

¹⁸ Title 22 constituents referenced in this program shall, at a minimum, refer to constituents identified in the technical report submitted pursuant to Provision I. 6.

¹⁹ Reporting for priority pollutants as referred to in this program shall conform to SIP Section 2.4 et seq.

CUTLER-OROSI JOINT POWERS WASTEWATER AUTHORITY WWTF
TULARE COUNTY**General Minerals Analyte List**

Alkalinity (as CaCO ₃)	Carbonate (as CaCO ₃)	Manganese
Aluminum	Chloride	Phosphate
Bicarbonate (as CaCO ₃)	Hardness (as CaCO ₃)	Potassium
Boron	Iron	Sodium
Calcium	Magnesium	Sulfate

General Minerals Sample Collection and Preservation: With the exception of wastewater samples, samples placed in an acid-preserved bottle must first be filtered through a 0.45 µm nominal pore size filter. If field filtering is not feasible, samples shall be collected in unpreserved containers and submitted to the laboratory within 24 hours with a request (on the chain-of-custody form) to immediately filter then preserve the sample.

Discharge 002

Effluent samples shall be collected downstream from the last connection through which wastes can be admitted into the outfall. Effluent samples should be representative of the volume and nature of the discharge. Time of collection of samples shall be recorded. Effluent monitoring shall include at least the following:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample or Measurement</u>	<u>Frequency¹ of Sampling or Measurement</u>
Flow	mgd	Metered	Continuous
Settleable Solids	mL/L	Grab	1/Day ²
pH	pH Units	Grab	1/Day ²
Temperature	°F	Grab	1/Day ²
Turbidity ³	NTU ⁴	Continuous	1/Day
TCO ⁵	MPN ⁶ /100 ml	Grab	1/Day
Acute Toxicity ⁷	% Survival	Grab	1/ Month
BOD ₅			
Concentration	mg/L	24-hr Composite	2/Week ⁸
Monthly Average	mg/L	Calculated	1/Month
Percent Removal	%	Calculated	1/Month
TSS			
Concentration	mg/L	24-hr Composite	2/Week ⁸
Monthly Average	mg/L	Calculated	1/Month
Percent Removal	%	Calculated	1/Month

CUTLER-OROSI JOINT POWERS WASTEWATER AUTHORITY WWTF
TULARE COUNTY

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample or Measurement</u>	<u>Frequency¹ of Sampling or Measurement</u>
Salinity compounds/parameters:			
EC ⁹	µmhos/cm	24-hr Composite	1/Day ²
TDS ¹⁰	mg/L	24-hr Composite	2/Month ¹¹
Chloride	mg/L	24-hr Composite	2/Month ¹¹
Sodium	mg/L	24-hr Composite	2/Month ¹¹
Boron	mg/L, lbs/day	24-hr Composite	2/Month ¹¹
SAR ¹²		Calculated	2/Year ¹³
Nitrogen Compounds			
Ammonia (as NH ₃ -N)	mg/L	24-hr Composite	1/Week ¹⁴
Un-ionized Ammonia ⁸ (as NH ₃ -N)	mg/L, lbs/day	Grab	1/Week ¹⁴
Nitrate (as NO ₃ -N)	mg/L	24-hr Composite	1/Week ¹⁴
Total Kjeldahl Nitrogen (TKN)	mg/L	24-hr Composite	1/Week ¹⁴
Total Organic Nitrogen (as N)	mg/L	Calculated	1/Week ¹⁴
Total Nitrogen	mg/L	Calculated	1/Week ¹⁴
Total Organic Carbon	mg/L	24-hr Composite	1/Quarter
General Minerals ¹⁵	mg/L	24-hr Composite	2/Year ¹⁶
Metals ¹⁷	µg/L	24-hr Composite	2/Year ¹⁶
Title 22 Constituents ¹⁸	varies	24-hr Composite	2/Year ¹⁶
Priority Pollutants ¹⁹	varies	Grab	2/Year ¹⁶

¹ If results of monitoring a pollutant appear to violate discharge specifications, but monitoring frequency is not sufficient to validate violation (e.g., the monthly mean for BOD₅), or indicate a violation and potential upset of the treatment process, the frequency of sampling shall be increased to confirm the magnitude and duration of violation, if any, and aid in identification and resolution of the problem.

² Daily monitoring for this constituent may exclude weekends and holidays.

³ The Discharger shall report the daily minimum, maximum and average turbidity.

⁴ Nephelometric turbidity units.

⁵ Total coliform organisms.

⁶ Most probable number.

⁷ All acute toxicity bioassays shall be performed according to *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters of Freshwater and Marine Organisms, Fifth Edition, October 2002, EPA-821-R-02-012* (or latest edition) using *Pimephales promelas* with no pH adjustment, unless exceptions are granted to the Discharger by the Executive Officer.

⁸ On nonconsecutive days.

CUTLER-OROSI JOINT POWERS WASTEWATER AUTHORITY WWTF
TULARE COUNTYFootnotes continued

- ⁹ Conductivity at 25°C.
- ¹⁰ Total dissolved solids (TDS) referenced hereafter in this program shall be determined using USEPA Method No. 160.1 for combined organic and inorganic TDS and USEPA Method No. 160.4 for inorganic TDS or equivalent analytical procedures specified in 40 Code of Federal Regulations (CFR) Part 136.
- ¹¹ Coincident with EC monitoring.
- ¹² Sodium adsorption ratio (SAR) referenced hereafter in this program shall be determined as follows:
- $$SAR = \frac{Na}{\sqrt{\frac{Ca + Mg}{2}}}, \text{ where Na, Ca, and Mg are in meq/L}$$
- ¹³ Coincident with effluent General Minerals monitoring.
- ¹⁴ Monitoring frequency following satisfaction of Provision I.6. Prior to this, nitrogen compounds in effluent shall be monitored at least 1/Month coincident with BOD₅ monitoring.
- ¹⁵ General Minerals as referred to in this program shall include the constituents in the General Minerals Analyte List presented above.
- ¹⁶ April and October.
- ¹⁷ Metals as referred to in this program shall include arsenic, barium, copper, cadmium, chromium, lead, mercury, molybdenum, selenium, silver, zinc, and nickel.
- ¹⁸ Title 22 constituents referenced in this program shall, at a minimum, refer to constituents identified in the technical report submitted pursuant to Provision I.6.
- ¹⁹ Reporting for priority pollutants as referred to in this program shall conform to SIP Section 2.4 et seq.

THREE SPECIES CHRONIC TOXICITY MONITORING

Chronic toxicity monitoring shall be conducted to determine whether the effluent is contributing toxicity to the receiving water. The testing shall be conducted as specified in EPA/821/R-02/013, *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, Fourth Edition, October 2002. Chronic toxicity samples shall be collected at Discharge 002 immediately prior to discharge to Sand Creek. Samples shall be representative of the volume and quality of the discharge. Time of collection of samples shall be recorded. Dilution and control waters shall be obtained from the receiving waters, immediately upstream of the discharge, from an area unaffected by the discharge to the receiving waters. If the receiving water source exhibits toxicity, standard dilution water can be used if its use is approved by the Executive Officer. The sensitivity of the test organisms to a reference toxicant shall be determined concurrently with each bioassay and reported with the test results. Both the reference toxicant and effluent test must meet all test acceptability criteria as specified in the chronic toxicity monitoring manual. If the test acceptability criteria are not achieved, then the Discharger must re-sample and re-test within 14 days. Chronic toxicity monitoring shall include the following:

CUTLER-OROSI JOINT POWERS WASTEWATER AUTHORITY WWTF
TULARE COUNTYSpecies: *Pimephales promelas*, *Ceriodaphnia dubia*, and *Selenastrum capricornutum*Frequency: *Quarterly*

Dilution Series:

						Controls	
						<u>Creek Water</u>	<u>Lab Water</u>
		<u>Dilutions (%)</u>					
% WWTP Effluent	100	75	50	25	12.5	0	0
% Dilution Water ¹	0	25	50	75	87.5	100	0
% Lab Water	0	0	0	0	0	0	100

- 1 Dilution water shall be receiving water from Sand Creek, taken from upstream of the discharge point. The dilution water and dilution series may be altered upon approval of Regional Board staff. If there is no flow in Sand Creek, a lab prepared solution shall be used for dilution water.

RECEIVING WATER MONITORING

All receiving water samples shall be grab samples. Samples shall be collected during weeks when there is flow in Sand Creek or when Discharge 002 is active. Receiving water monitoring shall include at least the following:

<u>Station</u>	<u>Description</u>
R-1	500 feet upstream from the point of discharge
R-2	500 feet downstream from the point of discharge

<u>Constituent</u>	<u>Units</u>	<u>Station</u>	<u>Sampling Frequency</u>
Flow	mgd	R-1	Daily
Dissolved Oxygen	mg/L	R-1, R-2	Weekly
pH	standard units	R-1, R-2	Weekly
Temperature	°F	R-1, R-2	Weekly
Turbidity	NTU	R-1, R-2	Weekly
EC @ 25°C	µmhos/cm	R-1, R-2	Weekly
Fecal Coliform Organisms	MPN ¹ / 100 mL	R-1, R-2	Weekly
Hardness (as CaCO ₃)	mg/L	R-1, R-2	Monthly

CUTLER-OROSI JOINT POWERS WASTEWATER AUTHORITY WWTF
TULARE COUNTY

<u>Constituent</u>	<u>Units</u>	<u>Station</u>	<u>Sampling Frequency</u>
Un-ionized Ammonia (NH ₃) as N	mg/L	R-1, R-2	Monthly ²
Priority Pollutants	mg/L	R-1, R-2	Twice ^{3,4,5}

¹ Most Probable Number

² Concurrent with temperature and pH monitoring.

³ Concurrent with pH and hardness monitoring.

⁴ Reporting for priority pollutants as referred to in this program shall conform to SIP Section 2.4 et seq.

⁵ Once in the fourth year and once in the fifth year of this Order and reported as indicated herein under REPORTING.

In conducting the receiving water sampling, a log shall be kept of the receiving water conditions throughout the reach bounded by Stations R-1 and R-2. Attention shall be given to the presence or absence of:

- Floating or suspended matter
- Visible films, sheens, or coatings
- Discoloration
- Bottom deposits
- Fungi, slimes, or objectionable growths
- Aquatic life
- Potential nuisance conditions

Notes on receiving water conditions shall be summarized in the monthly monitoring reports. The Discharger shall include in each monthly monitoring report the times when discharge to Sand Creek (Discharge 002) occurred and a narrative description of upstream flow conditions at the time(s) of discharge (i.e., approximate depth of flow).

SLUDGE MONITORING

Sludge samples shall be collected in accordance with EPA's *POTW Sludge Sampling and Analysis Guidance Document, August 1989*, and tested for the following:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample or Measurement</u>	<u>Frequency of Sampling or Measurement</u>
Sludge Produced	dry tons/day	Composite	Quarterly until DATE
			Annually after DATE
Percent Solids in Sludge	percent	Composite	Quarterly until DATE
			Annually after DATE

CUTLER-OROSI JOINT POWERS WASTEWATER AUTHORITY WWTF
TULARE COUNTY

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample or Measurement</u>	<u>Frequency of Sampling or Measurement</u>
Cadmium	mg/kg dry sludge	Composite	Annually
Chromium	mg/kg dry sludge	Composite	Annually
Copper	mg/kg dry sludge	Composite	Annually
Lead	mg/kg dry sludge	Composite	Annually
Nickel	mg/kg dry sludge	Composite	Annually
Zinc	mg/kg dry sludge	Composite	Annually

All sampling records shall be retained for a minimum of five years. A log shall be kept of sludge quantities generated and handling and disposal activities. The frequency of entries is discretionary; however, the log should be complete enough to serve as a basis for part of the quarterly reports.

Quarterly reports shall be submitted by 1 May, 1 August, 1 November and 1 February in the first year of the **Order No: R5-2006-XXXX**. The reports shall also include the following:

- A schematic diagram showing sludge handling facilities and a solids flow diagram.
- Depth of application and drying time for sludge drying beds.
- A description of disposal methods, including the following information related to the disposal methods used at the facility. If more than one method is used, include the percentage of annual sludge production disposed by each method.
 - *For landfill disposal*, include 1) the Board's Order number that regulates the landfill(s) used, 2) the present classification of the landfill(s) used, and 3) the names and locations of the facilities receiving sludge.
 - *For land application*, include 1) the location of the site(s), 2) the Board's Order number that regulates the site(s), 3) the application rate in lbs/acre/year (specify wet or dry), and 4) subsequent uses of the land.
 - *For incineration*, include 1) the name and location of the site(s) where sludge incineration occurs, 2) the Board's Order number that regulates the site(s), 3) the disposal method of ash, and 4) the names and locations of facilities receiving ash (if applicable).
 - *For composting*, include 1) the location of the site(s), and 2) the Board's Order number that regulated the site(s).

CUTLER-OROSI JOINT POWERS WASTEWATER AUTHORITY WWTF
TULARE COUNTY

An annual report shall be submitted by **1 February** summarizing the above information for the entire year. The above reporting requirements are reduced to annually by **1 February** starting the second year of Order No. R5-2006-XXXX.

WATER SUPPLY MONITORING

A sampling station shall be established where a representative sample of water supply can be obtained. Water supply monitoring shall include at least the following:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
EC @ 25°C	µmhos/cm	Grab	Quarterly
General Minerals	mg/L	Grab	Annually

EC shall be reported as a weighted average of EC from all source water sources. Copies of supporting calculations shall be included.

POND MONITORING

Pond monitoring shall include at least the following:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample or Measurement</u>	<u>Frequency of Sampling or Measurement</u>
Flow	mgd	Estimate	Daily
Freeboard	feet	Visual	Daily
Visual observation of weeds, scum, or solids buildup on ponds	--	Visual	Weekly ¹
Dissolved Oxygen in upper 1-foot of pond	mg/L	Grab ²	Weekly ¹

¹ Frequency shall be daily when in noncompliance with Pond Specifications and shall continue until at least one week after return to compliance.

² Samples shall be collected from each pond near the outlet and analyzed for dissolved oxygen. Samples shall be collected between 0800 and 0900 hours.

Permanent markers shall be maintained in the ponds with calibration indicating the water level at design capacity and available operational freeboard.

CUTLER-OROSI JOINT POWERS WASTEWATER AUTHORITY WWTF
TULARE COUNTY

GROUNDWATER MONITORING

The Discharger shall conduct regular groundwater sampling of the groundwater monitoring network.

Prior to collecting samples and after measuring the water level, each monitoring well shall be adequately purged to remove water that has been standing within the well screen and casing that may not be chemically representative of formation water. Depending on the hydraulic conductivity of the geologic setting, the volume removed during purging is typically from 3 to 5 volumes of the standing water within the well casing and screen, or additionally the filter pack pore volume.

At least quarterly and concurrently with groundwater quality sampling, the Discharger shall measure the water level in each well as groundwater depth (in feet and hundredths) and as groundwater surface elevation (in feet and hundredths above mean sea level). The horizontal geodetic location for each monitoring well shall be provided where the point of beginning shall be described by the California State Plane Coordinate System, 1983 datum. The groundwater surface elevation (in feet and hundredths, M.S.L.) in all wells shall be used to determine the gradient and direction of groundwater flow. This information shall be displayed on a water flow net diagram for the site. Water samples shall be collected from wells in the approved monitoring network and analyzed as follows:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample or Measurement</u>	<u>Frequency of Sampling or Measurement</u>
Depth	feet	Visual	Monthly
pH	standard units	Grab	Quarterly
EC @ 25°C	µmhos/cm	Grab	Quarterly
General Minerals ¹	mg/L	Grab	Quarterly
Total Coliform Organisms	MPN ² /100 mL	Grab	Quarterly
Total Nitrogen	mg/L	Grab	Quarterly
Nitrate (as N)	mg/L	Grab	Quarterly

¹ Alkalinity (as CaCO₃), Carbonate (as CaCO₃), Manganese, Aluminum, Chloride, Phosphate, Bicarbonate (as CaCO₃), Hardness (as CaCO₃), Potassium, Boron, Iron, Sodium, Calcium, Magnesium, Sulfate, and shall include verification that the analysis is complete (i.e., cation/anion balance).

² Most probable number.

The Discharger shall include a detailed description of the procedures and techniques for: (a) sample collection, including purging techniques, sampling equipment, and decontamination of sampling equipment; (b) sample preservation and shipment; (c) analytical procedures; and (d) chain of custody

CUTLER-OROSI JOINT POWERS WASTEWATER AUTHORITY WWTF
TULARE COUNTY

control. As it continues to monitor groundwater pursuant to this program, the Discharger shall report when it deviates from these procedures and techniques.

IRRIGATION MONITORING

Irrigation operations shall be monitored by submitting monthly estimates of irrigated land (in acres). In addition, the Discharger shall submit a summary report on the land management operation at the end of each year. The report shall discuss total water application in the year; the total volume of wastewater applied; the total nutrient loading from wastewater, sludges, and chemical fertilizers; and amount of nutrient removed through harvest of the crop. The report shall include a mass balance relative to pollutants of concern and hydraulic loading. The report is due by **1 February** of the following year.

REPORTING

The Discharger shall report monitoring data and information as required in this MRP and as required in the Standard Provisions and Reporting Requirements. All reports submitted in response to this MRP shall comply with the signatory requirements in Standard Provisions, General Reporting Requirements D.6. All monitoring data where the required monitoring frequency is monthly or more frequent than once per month shall be reported in monthly monitoring reports. Monthly monitoring reports shall be submitted to the Regional Board by the **1st day of the second month following sampling**. Quarterly monitoring reports shall be submitted by **1st day of the second month after the calendar quarter**. Semi-annual monitoring reports shall be submitted by the **1st day of the second month after the calendar half-year**. Annual monitoring reports shall be submitted by **1 February of the following year**. Priority pollutant monitoring reports shall be submitted no later than **180 days prior to the expiration of Order No. R5-2006-XXXX**. Failure to submit reports in a timely manner will result in the assessment of Mandatory Minimum Penalties pursuant to CWC Section 13395.

Monitoring data and/or discussions submitted concerning WWTF performance must be signed and certified by the chief plant operator. Reports containing laboratory analyses must also be signed and certified by: (1) when laboratory analyses are performed by the Discharger, the chief of the laboratory and (2) when performed by a contract laboratory, the chief of laboratory or authorized signatory.

Each laboratory report shall clearly identify the following:

- analytical method
- measured value
- units
- what constituent a value is reported as
- method detection limit (MDL)
- reporting limit (RL) (i.e., a practical quantitation limit or PQL)
- documentation of cation/anion balance for general minerals analyses of supply water and effluent samples

CUTLER-OROSI JOINT POWERS WASTEWATER AUTHORITY WWTF
TULARE COUNTY

All laboratory results shall be reported down to the MDL, as defined 40 CFR 136. Nondetected results shall be reported as less than the MDL (<MDL). Results above the MDL, but below the concentration of the lowest calibration standard for multipoint calibration methods or below the reporting limit for other methods shall be flagged as estimated.

In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the data, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner that indicates clearly whether the discharge complies with waste discharge requirements.

If the Discharger monitors any pollutant at the locations designated herein more frequently than is required by this Order, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Form. Such increased frequency shall be indicated on the Discharge Monitoring Report Form.

By **1 February of each year**, the Discharger shall submit a written report to the Executive Officer containing the following:

1. The names, certificate grades, and general responsibilities of all persons employed at the WWTF (Standard Provision A.5).
2. The names and telephone numbers of persons to contact regarding the facility for emergency and routine situations.
3. A statement certifying when the flow meters and other monitoring instruments and devices were last calibrated, including identification of who performed the calibration (Standard Provision C.6).
4. A statement certifying whether the current operation and maintenance manual, and contingency plan, reflect the WWTF as currently constructed and operated, and the dates when these documents were last revised and last reviewed for adequacy.
5. A summary of groundwater monitoring in a format (both printed and electronic) selected in concurrence with Regional Board staff, including:
 - a. Hydrographs showing the groundwater elevation in approved wells from the initial monitoring to the end of the reporting period, for at least the previous five years or to the extent that such data are available, whichever is fewer. The hydrographs should show groundwater elevation with respect to the elevations of the top and bottom of the screened interval and be presented at a scale of values appropriate to show trends or variations in groundwater elevation. The scale for the background plots shall be the same as that used to plot downgradient elevation data;

CUTLER-OROSI JOINT POWERS WASTEWATER AUTHORITY WWTF
TULARE COUNTY

- b. Graphs of the laboratory analytical data for samples taken from approved wells from the initial sampling to the end of the reporting period , within at least the previous five calendar years (as data become available). Each such graph shall plot the concentration of one or more waste constituents specified above selected in concurrence with Regional Board staff. The graphs shall plot each datum, rather than plotting mean values, over time for a given monitoring well, at a scale appropriate to show trends or variations in water quality. For any given constituent, the scale for the background plots shall be the same as that used to plot downgradient data.
 - c. All monitoring analytical data obtained during the previous four quarterly reporting periods, presented in tabular form, as well as on 3.5" computer diskette.
6. A summary and discussion of the compliance record for the reporting period. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with this Order.

All reports submitted in response to this Order shall comply with the signatory requirements of Standard Provision D.6.

The Executive Officer may require the Discharger to submit self monitoring reports electronically. Such a request will be made in writing.

The Discharger shall implement the above monitoring program on the effective date of this Order.

Ordered by:

PAMELA C. CREEDON, Executive Officer

(Date)